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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/814,539	03/31/2004	David M. Callaghan	03AB111/ALBRP333US	7412
<div>Susan M. Donahue Rockwell Automation 704-P, IP Department 1201 South 2nd Street Milwaukee, WI 53204</div>				
			<div>EXAMINER KANE, CORDELIA P</div>	
			<div>ART UNIT 2132</div>	<div>PAPER NUMBER</div>
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary

Application No.

10/814,539

Applicant(s)

CALLAGHAN, DAVID M.

Examiner

Cordelia Kane

Art Unit

2132

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 December 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11 and 30-41 is/are pending in the application.
- 4a) Of the above claim(s) 12-29 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-11 and 30-41 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 31 March 2004 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date 1/9/06, 3/14/06
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____

DETAILED ACTION

Election/Restrictions

1. Claims 12 – 29 are withdrawn from further consideration pursuant to 37 CFR 1.142(b), as being drawn to a nonelected invention and species, there being no allowable generic or linking claim. Applicant timely traversed the restriction/election requirement in the reply filed on December 18, 2007.

Information Disclosure Statement

2. The information disclosure statement filed March 14, 2006 fails to comply with 37 CFR 1.98(a)(3) because it does not include a concise explanation of the relevance, as it is presently understood by the individual designated in 37 CFR 1.56(c) most knowledgeable about the content of the information, of each patent listed that is not in the English language. It has been placed in the application file, but the information referred to therein has not been considered.

Claim Rejections - 35 USC § 112

3. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

4. Claim 8 is rejected under 35 U.S.C. 112, first paragraph, as failing to comply with the enablement requirement. The claim contains subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it

pertains, or with which it is most nearly connected, to make and/or use the invention.

Applicant refers to a virtual key component and it is unclear what a virtual key is.

Claim Rejections - 35 USC § 101

5. 35 U.S.C. 101 reads as follows:

Whoever invents or discovers any new and useful process, machine, manufacture, or composition of matter, or any new and useful improvement thereof, may obtain a patent therefor, subject to the conditions and requirements of this title.

6. Claims 1 – 11 are rejected under 35 U.S.C. 101 because the claimed invention is directed to non-statutory subject matter. In paragraph [0029] applicant states that the system may include software. Software does not fall into one of the four statutory categories of invention.

Claim Rejections - 35 USC § 102

7. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

8. Claims 1 – 8, 11, 30, 31, 34 and 36 are rejected under 35 U.S.C. 102(e) as being anticipated by Stefik et al's US Patent 6,959,290 B2. Referring to claim 1, Stefik teaches:

- a. A certification component that generates certificates for local domain automation devices (column 51, lines 9-13).
 - b. An access component that establishes rules of use for automation device services based at least upon the identity of a user or entity as provided by a certificate (column 51, lines 39-43).
9. Referring to claim 2, Stefik teaches that the system is executed remote from the automation device (column 41, lines 23-24).
10. Referring to claim 3, Stefik teaches that the communication occurs over a LAN (column 14, lines 50-51).
11. Referring to claim 4, Stefik teaches that the communications are secured using digital certificates which bind public keys to specific entities to facilitate decryption of messages as well as authentication of the sender (column 51, lines 5-8).
12. Referring to claim 5, Stefik teaches that the message is digitally signed to enable the message to be authenticated (column 51, lines 5-8).
13. Referring to claim 6, Stefik teaches that access to the access component is restricted to a particular user or group of users via certificates (column 12, lines 33-36).
14. Referring to claim 7, Stefik teaches that the devices includes an access credential component which defines and restricts access to particular objects and services based on the identity of the user as established by the certificate (column 7, lines 20-24).
15. Referring to claim 8, Stefik teaches a virtual key component adapted to retrieve identifying information from a certificate (column 26, lines 35-38).

16. Referring to claim 11, Stefik teaches that the automation device includes an I/O device (column 7, lines 55-57).
17. Referring to claim 30, Stefik teaches:
 - c. Encrypting a message to be sent to a automation device utilizing a key (column 27, lines 7-9).
 - d. Transmitting the encrypted message to the automation device (column 27, lines 19-20).
18. Referring to claims 31 and 36, Stefik teaches:
 - e. Receiving an encrypted message from an automation device or device controller (column 27, line 21).
 - f. Locating a certificate component associated with the automation device sending the message (column 27, lines 21-23).
 - g. Decrypting the message utilizing the public key provided by the certificate component (column 27, lines 26-27).
19. Referring to claim 34, Stefik teaches searching the local device store (column 27, lines 21-23).

Claim Rejections - 35 USC § 103

20. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

21. The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

22. Claims 9 and 10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stefik as applied to claims 1 and 7 above, and further in view of Asunmaa et al's US Publication 2003/0172090 A1. Stefik discloses all the limitations of the parent claims, using a key component to retrieve identifying information (column 26, lines 35-38), and embedding the repository in a card (column 16, lines 2-3). Stefik does not explicitly disclose the card being a SIM card. However, Asunmaa discloses using a SIM card to authenticate a user (page 4, paragraph 59). Stefik and Asunmaa are analogous art because they are from the same field of endeavor, authentication. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Stefik and Asunmaa before him or her, to modify the card of Stefik to include the SIM card of Asunmaa. The suggestion/motivation for doing so would have been to have reliable authentication of a data terminal (page 4, paragraph 59).

23. Claims 32, 33 and 37 – 41 are rejected under 35 U.S.C. 103(a) as being unpatentable over Stefik as applied to claims 30 and 31 above, and further in view of

Forth et al's US Publication 2002/0120521 A1. Referring to claim 32, Stefik discloses all the limitations of the parent claims. Stefik does not explicitly disclose that the automation device is an industrial PLC. However, Forth discloses using an industrial PLC to store instructions to perform I/O control (page 2, paragraph 25). Stefik and Forth are analogous art because they are from the field of Endeavor, input/output. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Stefik and Forth before him or her, to modify the input/output system of Stefik to include the industrial PLC of Forth. The suggestion/motivation for doing so would have been to provide increased versatility and additional functionality (page 2, paragraph 22).

24. Referring to claim 33, Stefik discloses that the message is a program (column 42, lines 17-18).

25. Referring to claims 37 and 41, Stefik discloses:

h. Generating a digitally signed message component comprising a message, a message digest, and hash function data, wherein the message component is generated by a first industrial automation device (column 42, lines 11-20).

i. Transmitting the message component to a second industrial automation device (column 42, lines 11-12). For the requestor to receive the message, another requestor would have had to have transmitted it.

26. Stefik does not explicitly disclose that the automation device is industrial.

However, Forth discloses using an industrial PLC to store instructions to perform I/O control (page 2, paragraph 25). Stefik and Forth are analogous art because they are

from the field of Endeavor, input/output. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Stefik and Forth before him or her, to modify the input/output system of Stefik to include the industrial PLC of Forth. The suggestion/motivation for doing so would have been to provide increased versatility and additional functionality (page 2, paragraph 22).

27. Referring to claims 38 and 39, Stefik discloses encrypting the message prior to transmission (column 42, lines 11-16).

28. Referring to claim 40, Stefik discloses authenticating the message by retrieving a hash function in accordance with the hash information (column 42, lines 11-15), generating a message digest by applying the retrieved hash function to the received message and comparing the generated message digest with the message digest retrieved from the message component (column 42, lines 17-20).

29. Claim 35 is rejected under 35 U.S.C. 103(a) as being unpatentable over Stefik as applied to claims 30 and 31 above, and further in view of Meffert et al's US Publication 2002/0059144 A1. Stefik discloses all the limitations of the parent claims. Stefik does not explicitly disclose downloading the certificate. However, Meffert discloses downloading the certificate and private keys (page 11, paragraph 109). Stefik and Meffert are analogous art because they are from the same field of endeavor, digital rights management. At the time of the invention, it would have been obvious to one of ordinary skill in the art, having the teachings of Stefik and Meffert before him or her, to modify receiving the certificate of Stefik to include downloading the certificate of Meffert.

The suggestion/motivation for doing so would have been to be able to identify the rights set and match the certificate to the private key (page 11, paragraph 109).


Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Cordelia Kane whose telephone number is 571-272-7771. The examiner can normally be reached on Monday - Thursday 8:00 - 5:00 EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Gilberto Barron can be reached on 571-272-3799. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.


Cordelia Kane
Patent Examiner


Benjamin E. Lauer
Primary Examiner
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